



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

233 Peachtree Street Ste. 600
Atlanta, GA 30303

NOTICE OF AMENDMENT

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

September 4, 2013

Mr. Robert L. Rose
President
Tampa Bay Pipeline Company
P.O. Box 35236
Sarasota, FL 34242

CPF 2-2013-6006M

Dear Mr. Rose:

On May 13-17, 2013, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Southern Region, Office of Pipeline Safety (OPS) inspected the Tampa Bay Pipeline Company (TBPL) control room in Tampa, Florida, pursuant to Chapter 601 of 49 United States Code.

On the basis of the inspection, PHMSA has identified apparent inadequacies within TBPL's written Control Room Management (CRM) procedures, which were contained in TBPL's Operations & Maintenance Procedure Manual (O&M Manual), as described below:

1. § 195.446 Control room management.

... (b) Roles and responsibilities. Each operator must define the roles and responsibilities of a controller during normal, abnormal, and emergency operating conditions. To provide for a controller's prompt and appropriate response to operating conditions, an operator must define each of the following:

TBPL's CRM procedures did not adequately define the roles and responsibilities of a controller during normal, abnormal, and emergency operating conditions.

O&M Manual Section 8.6.2 *On-Shift Breaks* stated, "*Staffing levels do not allow specific time for controller breaks away from pipeline control room. Operator performs routine walk around inspection, is authorized food and drink in control room keeping items away from work station, and has access to lavatory facility in the control room area.*" These procedures, however, did not include an explanation of when and how the pipeline is operated when the control room is unattended such as when controllers are in the restroom, or performing routine walk around inspections, etc.

2. § 195.446 Control room management

... (c) Provide adequate information. Each operator must provide its controllers with the information, tools, processes and procedures necessary for the controllers to carry out the roles and responsibilities the operator has defined by performing each of the following:

... (2) Conduct a point-to-point verification between SCADA displays and related field equipment when field equipment is added or moved and when other changes that affect pipeline safety are made to field equipment or SCADA displays;

TBPL's CRM procedures did not address the requirements to conduct a point-to-point verification.

Subsequent to the PHMSA inspection, TBPL provided revised O&M Manual Section 8.6.1 point-to-point verification procedures, which required verification when safety devices are replaced. But, the revised procedures did not specifically require verification when like-for-like replacement of safety-related field instrumentation occurs.

3. § 195.446 Control room management

... (c) Provide adequate information. Each operator must provide its controllers with the information, tools, processes and procedures necessary for the controllers to carry out the roles and responsibilities the operator has defined by performing each of the following:

... (4) Test any backup SCADA systems at least once each calendar year, but at intervals not to exceed 15 months;

TBPL's CRM procedures did not require the backup SCADA system to be tested at least once each calendar year at intervals not to exceed 15 months.

O&M Manual Section 8.14.2 stated, *"Test any backup SCADA systems. TBPL has a limited redundant SCADA node located at the operator's console. It is used primarily to display remote site status and runs concurrently with primary system daily. Technically this does not meet criteria as a backup SCADA system."* While this procedure said that the secondary SCADA server did not technically meet criteria as a backup SCADA system, TPL personnel explained during the PHMSA inspection that in the event of the primary server failure, they would use the secondary SCADA server to monitor and control the system. That said, neither this procedure nor any other procedure required the backup SCADA system to be tested at least once each calendar year at intervals not to exceed 15 months.

4. § 195.446 Control room management

... (d) Fatigue mitigation. Each operator must implement the following methods to reduce the risk associated with controller fatigue that could inhibit a controller's ability to carry out the roles and responsibilities the operator has defined:

... (1) Establish shift lengths and schedule rotations that provide controllers off-duty time sufficient to achieve eight hours of continuous sleep;

TBPL's CRM procedures did not adequately establish shift lengths and schedule rotations that provide controllers off-duty time sufficient to achieve eight hours of continuous sleep.

O&M Manual Section 8.6 did not adequately address how its fatigue mitigation program would reduce the risk associated with controller fatigue, and did not address whether or

not controllers are “on-call.” The procedures also did not explain how TBPL would minimize interrupting the required eight hours of continuous sleep if the controllers were “on-call.” Moreover, if an “on-call” controller was required to report to the control room on an unscheduled basis, the procedures did not address that the controller’s commute time should be counted as on-duty hours.

5. § 195.446 Control room management

... (d) **Fatigue mitigation. Each operator must implement the following methods to reduce the risk associated with controller fatigue that could inhibit a controller's ability to carry out the roles and responsibilities the operator has defined:**

... (4) **Establish a maximum limit on controller hours-of-service, which may provide for an emergency deviation from the maximum limit if necessary for the safe operation of a pipeline facility.**

TBPL’s CRM procedures did not adequately establish maximum limits on controller hours-of-service (HOS). That is CRM procedures in O&M Manual Section 8.6 did not convey

- the specific fatigue countermeasures that TBPL should implement for controllers working the ninth hour and beyond,
- any available fatigue countermeasures/tactics that TBPL could easily implement such as breaks in the control room, standing, exercise, required walk-arounds, etc.¹
- that the daily maximum HOS limit should be no more than 14 hours in any sliding 24-hour period,
- that the limitation on the number of allowed 18-hour (controller holdover) shifts per controller is 1 in any sliding 5-day period,
- the specific fatigue countermeasures TBPL should implement for
 - any and all shift duty hours worked after the first 8 hours,
 - any and all hours worked between 2:00 a.m. and 6:00 a.m.,
 - any and all night shifts immediately following three successive nights; and,
- a process for approving deviations from the maximum HOS limit.

Although subsequent to the PHMSA inspection TBPL provided revised procedures addressing HOS deviations, the revised procedures did not specifically address handling HOS deviations in advance of anticipated deviations, or, in cases where unforeseen events occur, obtaining verbal and subsequent written approval at the first practical moment after the deviation event.

6. § 195.446 Control room management

... (e) **Alarm management. Each operator using a SCADA system must have a written alarm management plan to provide for effective controller response to alarms. An operator's plan must include provisions to:**

... (1) **Review SCADA safety-related alarm operations using a process that ensures alarms are accurate and support safe pipeline operations;**

¹ When a controller was asked by PHMSA inspectors about the frequency of yard walk-arounds in accordance with O&M Manual Section 8.6.2, “Operator performs routine walk around inspection,” he stated that he did not do walk-arounds.

TBPL's CRM procedures in O&M Manual Section 8.8.1 did not describe how TBPL identified safety-related alarms and did not adequately describe a process that ensures alarms are accurate and support safe pipeline operations. The procedure stated,

"8.7.3 Safety-Related Alarms

TBPL's designated alarm database, see TBPL SCADA Alarm Management File.

This digital file includes identified safety-related alarms. Controllers are trained to understand which alarms are safety-related along with their individual implications. Safety-related specific alarms are critical alarms and do not include low importance alarms such as equipment efficiency alarms or measurement related alarms. 'For purposes of Control Room Management, PHMSA considers safety-related to mean any operational factor that is necessary to maintain pipeline integrity or that could lead to the recognition of a condition that could impact the integrity of the pipeline, or a developing abnormal or emergency situation'"

The above procedure and TBPL's policies did not adequately describe a process to ensure alarms are accurate and support safe pipeline operations. That is, TBPL's CRM procedures did not require the evaluation of each controller's ability to accurately perceive SCADA display object characteristics (e.g., color, shape, text) that indicate the safety-related alarms used in the operator's SCADA system.

7. § 195.446 Control room management

... (e) Alarm management. Each operator using a SCADA system must have a written alarm management plan to provide for effective controller response to alarms. An operator's plan must include provisions to:

... (3) Verify the correct safety-related alarm set-point values and alarm descriptions when associated field instruments are calibrated or changed and at least once each calendar year, but at intervals not to exceed 15 months;

TBPL's CRM procedures did not include a formal process to determine the correct pressure and flow alarm set-points for each alarm priority and did not clearly address how, and to what degree, controllers can change alarm limits, set-points, inhibit alarms, or take points off-scan.

8. § 195.446 Control room management

... (e) Alarm management. Each operator using a SCADA system must have a written alarm management plan to provide for effective controller response to alarms. An operator's plan must include provisions to:

... (5) Monitor the content and volume of general activity being directed to and required of each controller at least once each calendar year, but at intervals not exceeding 15 months, that will assure controllers have sufficient time to analyze and react to incoming alarms; and ...

TBPL's CRM procedures did not explain how TBPL monitored the content and volume of general activity being directed to, and required of, each controller. O&M Manual Section 8.12.5 only "parroted" the federal pipeline safety regulations.

9. § 195.446 Control room management

... (f) Change management. Each operator must assure that changes that could affect control room operations are coordinated with the control room personnel by performing each of the following:

... (1) Implement section 7 of API RP 1168 (incorporated by reference, see § 195.3) for control room management change and require coordination between control room representatives, operator's management, and associated field personnel when planning and implementing physical changes to pipeline equipment or configuration;

TBPL's CRM procedures did not adequately require coordination between control room representatives, operator's management, and associated field personnel when planning and implementing physical changes to pipeline equipment or configuration.

O&M Manual Section 8.8 did not require that configuration changes to SCADA screens relating to changes in field equipment must be made prior to the equipment changes going into operation. Also, the procedures did not specifically convey that TBPL followed section 7 of API RP 1168.

10. § 195.446 Control room management

... (g) Operating experience. Each operator must assure that lessons learned from its operating experience are incorporated, as appropriate, into its control room management procedures by performing each of the following:

... (2) Include lessons learned from the operator's experience in the training program required by this section.

TBPL's CRM procedures were not in the detail required to assure that lessons learned from TBPL's experience were included in its training program.

O&M Manual Section 8.9.4 did not describe examples of events from lessons learned to be included in training; i.e., operating events (in addition to reportable incidents/accidents) like near misses, leaks, operational and maintenance errors, etc.

Response to this Notice

This Notice is provided pursuant to 49 U.S.C. §60108(a) and 49 C.F.R. §190.237. Enclosed as part of this Notice is a document entitled *Response Options for Pipeline Operators in Compliance Proceedings*. Please refer to this document and note the response options. Be advised that all material you submit in response to this enforcement action is subject to being made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. 552(b), along with the complete original document you must provide a second copy of the document with the portions you believe qualify for confidential treatment redacted and an explanation of why you believe the redacted information qualifies for confidential treatment under 5 U.S.C. 552(b). If you do not respond within 30 days of receipt of this Notice, this constitutes a waiver of your right to contest the allegations in this Notice and authorizes the Associate Administrator for Pipeline Safety to find facts as alleged in this Notice without further notice to you and to issue a Final Order.

If, after opportunity for a hearing, your plans or procedures are found inadequate as alleged in this Notice, you may be ordered to amend your plans or procedures to correct the inadequacies (49 C.F.R. § 190.237). If you are not contesting this Notice, we propose that you submit your amended procedures to my office within 60 days of receipt of this Notice. This period may be extended by written request for good cause. Once the inadequacies identified herein have been addressed in your amended procedures, this enforcement action will be closed.

It is requested (not mandated) that Tampa Bay Pipeline Company maintain documentation of the safety improvement costs associated with fulfilling this Notice of Amendment (preparation/ revision of plans, procedures) and submit the total to Wayne T. Lemoi, Director, Southern Region, Pipeline and Hazardous Materials Safety Administration. In correspondence concerning this matter, please refer to **CPF 2-2013-6006M** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,



Wayne T. Lemoi
Director, Office of Pipeline Safety
PHMSA Southern Region

Enclosure: *Response Options for Pipeline Operators in Compliance Proceedings*